

PROSTHETIC HEART VALUE

Related Applications

- 5 [0001] The present application is a divisional of U.S. Patent Application Serial No. 09/772,526, *now U.S. Patent No. 6,682,559* the entirety of which is hereby incorporated by reference, which was based on and claims priority to U.S. Provisional Application No. 60/178,333, filed January 27, 2000, the entirety of which is hereby incorporated by reference.

Background of the Invention

10 Field Of The Invention

[0002] This invention relates to heart valves, and more particularly relates to replacement of diseased or injured heart valves.

Description of the Related Art

- 15 [0003] There are four valves in the heart that serve to direct blood flow through the two sides of the heart. On the left (systemic) side of the heart are: (1) the mitral valve, located between the left atrium and the left ventricle, and (2) the aortic valve, located between the left ventricle and the aorta. These two valves direct oxygenated blood from the lungs through the left side of the heart and into the aorta for distribution to the body. On the right (pulmonary) side of the heart are: (1) the tricuspid valve, located between the right
- 20 atrium and the right ventricle, and (2) the pulmonary valve, located between the right ventricle and the pulmonary artery. These two valves direct de-oxygenated blood from the body through the right side of the heart and into the pulmonary artery for distribution to the lungs, where the blood becomes re-oxygenated in order to begin the circuit anew.

- [0004] All four of these heart valves are passive structures in that they do not
- 25 themselves expend any energy and do not perform any active contractile function. They consist of moveable "leaflets" that open and close in response to differential pressures on either side of the valve. The mitral and tricuspid valves are referred to as "atrioventricular valves" because they are situated between an atrium and ventricle on each side of the heart. The mitral valve has two leaflets and the tricuspid valve has three. The aortic and